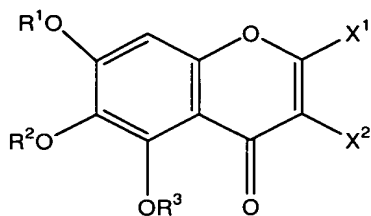


Amendments to the Claims:

This listing will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A compound according to formula I :



(I)

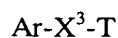
wherein:

R¹, R², and R³ are each independently H, alkyl, alkenyl, alkynyl, -SO₃H, or -PO₃H₂, or R¹ and R² are each independently ~~(CH₂)_n~~ Y and [CH₂CH (OH) CH₂]Y, wherein Y is H, OR⁴, NR⁵R⁶, COOR⁴, or CONR⁵R⁶ wherein R⁴, R⁵, and R⁶ are each independently H, alkyl, alkenyl, or alkynyl, and R⁵ and R⁶ together may form a 5 to 7-membered ring;

or R¹ and R² together ~~are heterocycles~~ become a methylene unit (CH₂);

or R² and R³ together ~~are heterocycles~~ become a methylene unit (CH₂);
and

X¹ and X² are each independently of the formula :



wherein Ar may or may not be present, but at least either X¹ or X² must be present; and when both X¹ and X² are present, Ar is phenyl, furanyl, thienyl,

pyridyl, cyclohexyl or benzyl; wherein X^3 is H, C, N, NR' , $NR'R''$, $NR'SO_2 R''$, or O , wherein R' and R'' are each independently H, alkyl, alkenyl, or alkynyl, wherein T is $(CH_2)_n Y$ or $[CH_2CH(OH)CH_2]Y$, ~~wherein n is 0 or 3~~, Y is H, OR^4 , NR^5R^6 , $COOR^4$, or $CONR^5R^6$ wherein R^4 , R^5 , and R^6 are each independently H, alkyl, or alkenyl, alkynyl, and R^5 and R^6 together may form a 5 to 7-membered ring; or pharmaceutically acceptable salts thereof;

when either of X^1 or X^2 is present, Ar is a substituted phenyl:

wherein X^3 is C, N, NR' , $NR'R''$, $NR'SO_2 R''$, OR^1 ; ;

or when either of X^1 or X^2 is present, Ar is furanyl, thienyl, pyridyl, cyclohexyl or benzyl: and X^3 is H, C, N, NR' , $NR'R''$, $NR'SO_2 R''$, or O ; wherein R' and R'' are each independently H, alkyl, alkenyl, or alkynyl, and OR^1 is $O(CH_2)_n Y$, wherein n is 1 to 2, Y is OR^4 , NR^5R^6 , $COOR^4$, or $CONR^5R^6$; or $O[CH_2CH(OH)CH_2]Y$, wherein Y is H, OR^4 , NR^5R^6 , $COOR^4$, or $CONR^5R^6$; wherein T is $(CH_2)_n Y$ or $[CH_2CH(OH)CH_2]Y$, ~~wherein n is 0-3~~, Y is H, OR^4 , NR^5R^6 , $COOR^4$, or $CONR^5R^6$ wherein R^4 , R^5 , and R^6 are each independently H, alkyl, alkenyl, or alkynyl, and R^5 and R^6 together may form a 5 to 7-membered ring; or pharmaceutically acceptable salts thereof, subject to the proviso that the compound according to formula I is not baicalein or 5,6, 7-trihydroxyisoflavone or a compound wherein X^3 is hydroxyl-substituted phenyl.

2. (Original) The compound according to claim 1, wherein the alkyl is a lower alkyl.

3. (canceled)

4. (original) .The compound according to claim 1, wherein R^1 , R^2 and R^3 are each independently SO_3H or PO_3H_2

5. (Currently Amended) The compound according to claim 1, wherein R¹ and R² together is ~~a five membered or six membered ring structure.~~ become a methylene unit (CH₂).

6. (Currently Amended) The compound according to claim 1, wherein R² and R³ together is ~~a five membered or six membered ring structure.~~ become a methylene unit (CH₂).

7. (Canceled)

8. (Original) The compound according to claim 1, wherein the compound is a salt form of the compound.

9. (Original) The compound according to claim 8, wherein the salt form of the compound is a sodium or potassium salt of the compound.

10. (Original) The compound according to claim 1, wherein the compound is water soluble.

11. (Currently Amended) The compound wherein the compound is ~~4'-(amino)-5,7-dihydroxy-6-methoxy flavone, 4'-(amino)-5,6,7-trimethoxy flavone, 4'-(N,N-dimethylamino)-5, 6,7-trimethoxyflavone, 4'-(methylamino)-5, 6,7-trimethoxyflavone, 4'-[N-methyl-N-(3-methoxypropyl)amino]-5,6,7-trimethoxyflavone, 4'-[N,N-di-(2-hydroxyethyl)-amino]-5,7-dihydroxy-6-methoxyflavone, 4'-(2-hydroxyethylamino)-5,7-dihydroxy-6-methoxyflavone, 4'-(2-methanesulfonatoethylamino)-5,7-dihydroxy-6-methoxyflavone, 4'-[2-(N,N-diethylamino)ethylamino]-5,7-dihydroxy-6-methoxyflavone, 2,3-diphenyl-5,6,7-trimethoxychromone, 2,3-diphenyl-5,6,7-trihydroxychromone, 4'-~~

(methylsulfonamido)-5,6,7-trimethoxyflavone, 4'-[2-(N,N-diethylamino)ethoxy]-6,7-methylenedioxy-5-hydroxy-flavone, 4'-(2,3-dihydroxy-propyloxy)-5,6,7-trimethoxyflavone, or 4'-(Carbmethoxymethoxy)-5,6,7-trimethoxyflavone.

12. (Original) A pharmaceutical formulation comprising a compound according to claim 1 and at least one pharmaceutically acceptable carrier, diluent, or excipient.

13. (Original) The pharmaceutical formulation comprising a compound according to claim 12, wherein the pharmaceutically acceptable carrier is an aqueous carrier.

14. (currently amended) A method of treating diseases associated with overproduction of TNF- α selected from the group consisting of arthritis, rheumatoid arthritis, Crohn's disease, ulcerative colitis, ~~insulin-resistance~~, multiple sclerosis, organ failure, and pulmonary fibrosis, ~~and atherosclerosis~~, comprising administering to a subject in need thereof an effective amount of a compound according to claim 1.

15. (currently amended) A method of treating diseases associated with overproduction of superoxide anion radical selected from the group consisting of ~~Alzheimer's disease, Parkinson's disease, aging, myocardial infarction, and atherosclerosis, autoimmune disease, radiation injury, emphysema, sunburn, joint disease, and oxidative stress~~, comprising administering to a subject in need thereof an effective amount of a compound according to claim 1.

16. (Canceled)

17 (canceled).

18. (previously resented) A method of treating organ damage, selected from liver damage, lung damage or kidney damage or combinations thereof comprising administering to a subject in need thereof an effective amount of a compound according to claim 1.

19. (Canceled).

21. (Canceled).

22.(Canceled).

23. (Canceled).

24. (Canceled)

25. (Canceled)

26.(Canceled).

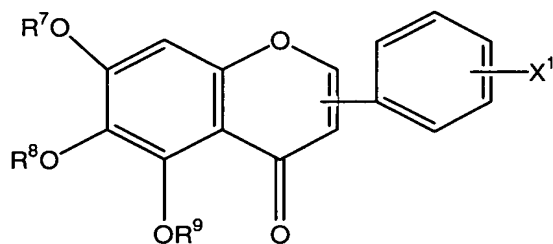
27. (Canceled).

28.(Canceled).

29. (Canceled)

30. (Canceled)

31. (Currently Amended) A method of treating conditions selected from the group consisting of diseases associated with the overproduction of TNF- α , overproduction of superoxide anion radical,, organ damage, ,and combinations thereof, comprising administering to a subject in need thereof, a pharmaceutical composition comprising a therapeutically effective amount of a compound of the formula V:



(V)

wherein: R⁷, R⁸, and R⁹ are each independently H, alkyl, -SO₃H, -PO₃H₂ or benzyl; or R⁷ and R⁸ together ~~are heterocycles~~ become a methylene unit (CH₂); or R⁸ and R⁹ together ~~are heterocycles~~ become a methylene unit (CH₂); X¹ is H, C, NH₂, NHCOCH₃, or OR¹⁰, wherein R¹⁰ is H, alkyl or benzyl, or pharmaceutically acceptable salts thereof.

32. (Original) The method according to claim 31, wherein the alkyl is a lower alkyl.

33. (Original) The compound according to claim 1, wherein R¹, R² and R³ are each independently -SO₃H or -PO₃H₂.

34. (Canceled)

35. (currently amended) The method according to claim 31, wherein R^7 and R^8 together ~~are heterocycles~~ become a methylene unit (CH_2).

36. (cancelled)

37. (currently amended) The method according to claim 31, wherein R^8 and R^9 together ~~are heterocycles~~ become a methylene unit (CH_2).

38. (Original) The method according to claim 31, wherein X^1 is substituted on the ortho, meta, or para position of the phenyl ring.

39. (Original) The method according to claim 31, wherein the compound is 5,6,7-trihydroxyisoflavone.

40. (Original) The method according to claim 31, wherein the organ damage is liver damage, lung damage, or kidney damage, or combinations thereof.

41. (Canceled).

42. (Canceled).

43. (Canceled)

44. (previously presented) The method according to claim 31, wherein the pharmaceutical composition is administered in combination with at least one other therapeutic agent useful for the prevention or treatment of conditions associated with overproduction of TNF- α , overproduction of superoxide anion radical, and organ damage.

45. (Original) The method according to claim 31, wherein the pharmaceutical composition is administered orally or parenterally.

46. (previously presented) A method of treating conditions selected from the group consisting of diseases associated with the overproduction of TNF- α overproduction of superoxide anion radical, organ damage, and combinations thereof, comprising administering to a subject in need thereof, a pharmaceutical composition comprising a therapeutically effective amount of a compound selected from the group consisting of baicalein-6-sulfate, baicalein-6,7-disulfate, baicalein-6-phosphate, baicalein-6,7-diphosphate, baicalein- 5,6, 7-triphosphate, sodium and potassium salt derivatives thereof, and pharmaceutically acceptable salts thereof.

47. (Original) The method according to claim 46, wherein the organ damage is liver damage, lung damage, or kidney damage, or combinations thereof.

48. (Canceled)

49. (Canceled)

50. (Canceled)

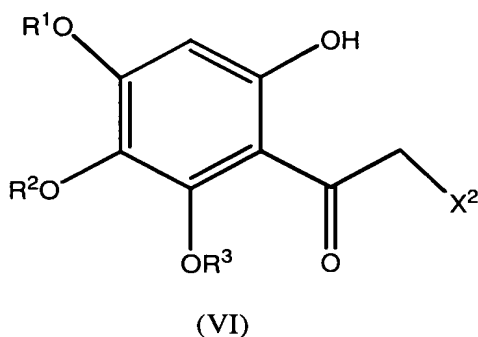
51. (Original) The method according to claim 46, wherein the compound is baicalein 6-sulfate or sodium or potassium salt derivatives thereof.

52. (Currently Amended) The method according to claim 46, wherein the pharmaceutical composition is administered in combination with at least one other therapeutic agent useful for the prevention or treatment of conditions associated with overproduction of TNF- α , overproduction of superoxide anion radical.

53. (Original) The method according to claim 44, wherein the pharmaceutical composition is administered orally or parentally.

54. (Currently Amended) A method of treating conditions selected from the group consisting of diseases associated with the overproduction of TNF- α , overproduction of superoxide anion radical, organ damage, and combinations thereof, comprising administering to a subject in need thereof, a pharmaceutical composition comprising a therapeutically effective amount of compound as in Claim 11. ~~4'-(N,N-dimethylamino)-5,6,7-trimethoxyflavone, 4'-(methylamino)-5,6,7-trimethoxyflavone, 2,3-diphenyl-5,6,7-trimethoxychromone, 2,3-diphenyl-5,6,7-trihydroxychromone, 4'-(methylsulfonamide)-5,6,7-trimethoxyflavone or 4'-(Carbomethoxymethoxy)-5,6,7-trimethoxyflavone.~~

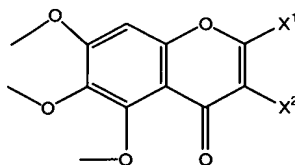
55. (Currently Amended) A method of synthesizing a compound of formula I as defined in claim 1, or pharmaceutically acceptable salts thereof, comprising reacting a compound of formula (VI):



herein:

R^1 , R^2 , and R^3 are each independently H, alkyl, alkenyl, alkynyl, $-SO_3H$, or $-PO_3H_2$; or R^1 and R^2 are each independently $(CH_2)_nY$ and $[CH_2CH(OH)CH_2]Y$, wherein Y is H, OR^4 , NR^5R^6 , $COOR^4$, or $OONR^5R^6$ wherein R^4 , R^5 , and R^6 are each independently H, alkyl, alkenyl, or alkynyl, and R^5 and R^6 together may become a methylene unit (CH_2) ~~form a 5 to 7 membered ring~~; or R^1 and R^2 together ~~are heterocycles~~ become a methylene unit (CH_2) ; with $(ArCO)_2O$, $ArCO_2Na$ and an acid sodium salt wherein Ar is as defined above.

56. (previously presented) A method of synthesizing a compound of formula I as defined in claim 1 wherein X^1 and X^2 represent $Ar-X^3-T$ wherein X^3 is H, R^1 , R^2 , and R^3 are H or one of R^1 and R^2 is CH_3 , or pharmaceutically acceptable salts thereof, comprising reacting a compound of formula VII:



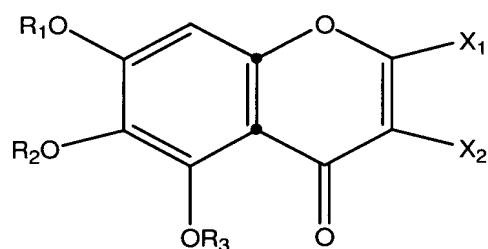
wherein X^1 and X^2 represent $Ar-X^3-T$ wherein X^3 is H, with aqueous hydrobromic acid (HBr) or boron tribromide (BBr_3).

57. (Currently Amended) A method of synthesizing a compound of formula I as defined in claim 1, or pharmaceutically acceptable salts thereof, comprising reacting a compound of formula I wherein X^1 and X^2 represent $Ar-X^3-T$ wherein X^3-T is OH or NH_2 with an electrophile such as $W(CH_2)_nY$, $WCH_2CH(O)CH_2$, or $HOCH_2CH(O)CH_2$ wherein W is a leaving group and Y is H, OR^4 , NR^5R^6 , $COOR^4$, or $OONR^5R^6$ wherein R^4 , R^5 , and R^6 are each independently H, alkyl, alkenyl, or alkynyl, and R^5 and R^6 together may form a 5 to 7-membered ring.

58. (previously presented) The method according to claim 31, wherein the compound is 4',5,6,7- tetrahydroxyflavone

59. (previously presented) The method according to claim 31, wherein the compound is 4'-amino -5,7-dihydroxy-6-methoxy flavone

60 (new) A method of treating organ damage which comprises administering to a subject in need thereof a therapeutically effective amount of a compound of the formula:



wherein R_1 is selected from hydrogen and alkyl;

R_2 is selected from hydrogen, alkyl and sulfate

or R_1 and R_2 jointly form a methylene group.;